

MSS_2 in its registration request, and will be transparently transported to the SCC-AS by the S-CSCF.

[0078] As evident from the above-described exemplary procedures of FIGS. 8 to 11, exemplary embodiments of the present invention are capable of overcoming the problem in terms of service continuity of conventional re-routing procedures (as described in connection with FIGS. 4 and 5), i.e. the problem in terms of service continuity when a subscriber is registered to a centralized network system such as the ICS system (e.g. centralized CS/IMS domain), e.g. over the EPS.

[0079] In view of the above-described exemplary procedures, exemplary embodiments of the present invention are capable of achieving an appropriate interworking of a centralized network system such as the ICS system (e.g. centralized CS/IMS domain) and CS fallback (CSFB) mechanisms according to 3GPP specifications. Stated in other words, exemplary embodiments of the present invention can achieve that the ICS architecture functions properly (including appropriate completion of a CSFB mechanism) even when a change of a switching entity (such as e.g. a MSC, a MSC server or a MSS) happens in a re-routing situation during execution of the CSFB mechanism.

[0080] Accordingly, exemplary embodiments of the present invention are for example effective in a VoLTE architecture/implementation, when CSFB is deployed as a voice service component in LTE/LTE-A.

[0081] By virtue of exemplary embodiments of the present invention, as evident from the above, service continuity in a centralized service network system can be enabled/realized, especially in a re-routing situation of a terminal. Specifically, service continuity can be enabled/realized in a centralized service network system irrespective of the cause of the re-routing situation. For example, such re-routing situation, in/for which exemplary embodiments of the present invention are applicable for enabling/realizing service continuity, may be caused/induced (and thus relate to) a CS fallback mechanism (i.e. transfer of a terminal from (a switching entity in a) packet-switched network access to (a switching entity in a) circuit-switched network access), or a CS-internal mechanism (i.e. transfer of a terminal from (a switching entity in a) circuit-switched network access to another (switching entity in a) circuit-switched network access), or any other kind of mechanism, as long as the terminal is to be re-routed from one switching entity to another switching entity.

[0082] The above-described methods, procedures and functions may be implemented by respective functional elements, processors, or the like, as described below.

[0083] While in the foregoing exemplary embodiments of the present invention are described mainly with reference to methods, procedures and functions, corresponding exemplary embodiments of the present invention also cover respective apparatuses, network nodes and systems, including both software and/or hardware thereof.

[0084] Respective exemplary embodiments of the present invention are described below referring to FIG. 12, while for the sake of brevity reference is made to the detailed description of respective corresponding configurations/setups, schemes, methods and functionality, principles and operations according to FIGS. 1 to 11.

[0085] FIG. 12 shows a schematic diagram illustrating an exemplary structure of apparatuses according to exemplary embodiments of the present invention.

[0086] In FIG. 12, the solid line blocks are basically configured to perform respective operations as described above.

The entirety of solid line blocks are basically configured to perform the methods and operations as described above, respectively. With respect to FIG. 12, it is to be noted that the individual blocks are meant to illustrate respective functional blocks implementing a respective function, process or procedure, respectively. Such functional blocks are implementation-independent, i.e. may be implemented by means of any kind of hardware or software, respectively. The lines interconnecting individual blocks are meant to illustrate an operational coupling there-between, which may be a physical and/or logical coupling, which on the one hand is implementation-independent (e.g. wired or wireless) and on the other hand may also comprise an arbitrary number of intermediary functional entities not shown.

[0087] Further, in FIG. 12, only those functional blocks are illustrated, which relate to any one of the above-described methods, procedures and functions. A skilled person will acknowledge the presence of any other conventional functional blocks required for an operation of respective structural arrangements, such as e.g. a power supply, a central processing unit, respective memories or the like. Among others, memories are provided for storing programs or program instructions for controlling the individual functional entities to operate as described herein.

[0088] As indicated in FIG. 12, according to exemplary embodiments of the present invention, the apparatus 10 may comprise at least one processor 11 and at least one memory 12 (and possibly also at least one interface 13), which may be connected by a bus 14 or the like, respectively.

[0089] The processor 11 and/or the interface 13 of the apparatus 10 may also include a modem or the like to facilitate communication over a (hardwire or wireless) link, respectively. The interface 13 of the apparatus 10 may include a suitable transceiver coupled to one or more antennas or communication means for (hardwire or wireless) communications with the linked or connected device(s), respectively. The interface 13 of the apparatus 10 is generally configured to communicate with at least one other apparatus.

[0090] The memory 12 of the apparatus 10 may store respective programs assumed to include program instructions or computer program code that, when executed by the respective processor, enables the respective electronic device or apparatus to operate in accordance with the exemplary embodiments of the present invention. For example, the memory 12 of the apparatus 10 may store a registration, waiting timer configuration information, or the like.

[0091] In general terms, respective devices/apparatuses (and/or parts thereof) may represent means for performing respective operations and/or exhibiting respective functionalities, and/or the respective devices (and/or parts thereof) may have functions for performing respective operations and/or exhibiting respective functionalities.

[0092] In view of the above, the thus illustrated apparatus 10 is suitable for use in practicing the exemplary embodiments of the present invention, as described herein.

[0093] The thus illustrated apparatus 10 may represent a (part of a) network entity managing the registration of a contact point for centralized services for terminals in a network system, such as a SCC-AS entity, according to exemplary embodiments of the present invention, and it may be configured to perform a procedure and/or exhibit a functionality as described (for the SCC-AS) in any one of FIGS. 6 to 11.